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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,300	08/18/2003	Philip Victor Harman	006020.00025	1991

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WASHINGTON, DC 20005-4051

EXAMINER

KIM, CHONG R

ART UNIT	PAPER NUMBER
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2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/642,300

Applicant(s)

HARMAN, PHILIP VICTOR

Examiner

Charles Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/586,869.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment and Arguments

1. Applicant's amendment filed on February 22, 2007 has been entered and made of record.
2. In view of applicant's amendment, the objection to the specification due to a non-descriptive title is withdrawn.
3. Applicant's arguments with respect to claims 2 and 4 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Walker, U.S. Patent No. 6,104,837 ("Walker") and Trika et al., U.S. Patent No. 6,630,931 ("Trika").

Referring to claim 4, Walker discloses a method comprising:

- a. receiving 2D images (VID) and depth map data (DD) relating to the 2D images (col. 4, lines 40-56);

- b. embedding the depth map data in a portion of a video signal including the 2D image data which does not obscure or overwrite the 2D image data (col. 4, lines 40-56 and figure 3); and
- c. transmitting the video signal (col. 4, lines 40-56).

Walker does not explicitly disclose that the transmitted video signal enables conversion of the 2D images and viewing of the converted 2D images in a stereoscopic viewing system. However, this feature was exceedingly well known in the art. For example, Trika discloses using a transmitted video signal comprising 2D image data and depth map data to enable conversion of the 2D images and viewing of the converted 2D images in a stereoscopic viewing system (abstract).

Walker and Trika are combinable because they are both concerned with image processing for interactive applications using 2D images and depth map data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Walker in view of Trika. The suggestion/motivation for doing so would have been to enhance the flexibility of the image processing method. Therefore, it would have been obvious to combine Walker with Trika to obtain the invention as specified in claim 2.

Referring to claim 4, Walker further discloses that the depth map data is embedded in an MPEG data stream of a digital television signal (col. 4, lines 40-56 and figure 3).

5. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tseng et al., U.S. Patent No. 5,617,334 ("Tseng") and Trika et al., U.S. Patent No. 6,630,931 ("Trika").

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Referring to claim 2, Tseng discloses a method comprising:

- a. receiving 2D images (I_c^1) and depth map data (D_c^1) relating to the 2D images (col. 3, lines 47-62);
- b. embedding the depth map data in a portion of a video signal including the 2D image data which does not obscure or overwrite the 2D image data (col. 5, lines 49-51); and
- c. transmitting the video signal (col. 5, lines 49-56).

Tseng does not explicitly disclose that the transmitted video signal enables conversion of the 2D images and viewing of the converted 2D images in a stereoscopic viewing system. However, this feature was exceedingly well known in the art. For example, Trika discloses using a transmitted video signal comprising 2D image data and depth map data to enable conversion of the 2D images and viewing of the converted 2D images in a stereoscopic viewing system (abstract).

Tseng and Trika are combinable because they are both concerned with multi-viewpoint imaging methods using 2D images and depth map data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Tseng in view of Trika. The suggestion/motivation for doing so would have been to enhance the flexibility of the multi-viewpoint image processing method. Therefore, it would have been obvious to combine Tseng with Trika to obtain the invention as specified in claim 2.

Referring to claim 4, Tseng further discloses that the depth map data is embedded in an MPEG data stream of a digital television signal (col. 4, lines 48-50).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 571-272-7421. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ck
ck

March 5, 2007


BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600